IN THE CLAIMS

1. (currently amended) A compound as represented by of formula (I), or its an enantiomers or diastereoisomers thereof:

$$R^{1} \xrightarrow{A} O \xrightarrow{R^{4}} N \xrightarrow{R^{3}} (I)$$

wherein:

A is a 5- or 6-membered homocyclic ring, or a 5- or 6-membered heterocyclic ring containing 1- or more heteroatems selected from N, O and S;

X is H and W is OH; or X and W together form a carbonyl group or an epoxide;

R¹ is H; or one or two substituents independently selected from the group consisting of: hydroxy; halo; lower alkyl; lower alkoxy; lower thioalkyl; haloalkyl (e.g. trifluoromethyl); or -C(O)R² wherein R² is lower alkyl, aryloxy or benzyloxy;

Y is phenyl optionally mono- or di-substituted with R⁵ or C(O)R⁶, wherein R⁵ is lower alkyl, lower cycloalkyl, lower alkoxy, halo, hydroxy, nitrile or trifluoromethyl, and R⁶ is lower alkyl, lower cycloalkyl, lower alkoxy, hydroxy or trifluoromethyl; said phenyl ring being optionally fused with a saturated or unsaturated 4 to 6-membered ring optionally containing a heteroatom selected from N, O and S;

or Y is a heterocycle (Het) containing one or more heteroatom selected from N, O or S, said Het optionally mone or di-substituted with R⁵ or C(O)R⁶, wherein R⁵ and R⁶ are as defined above; said Het being optionally fused with a saturated or unsaturated 4 to 6 membered ring optionally containing a heteroatom selected from N, O and S;

or Y is ethylene-phenyl, said ethylene moiety being optionally mono-substituted with lower alkyl, wherein said phenyl ring is optionally mono- or di-substituted with R⁵ or C(O)R⁶, wherein R⁵ and R⁶ are as defined above; said phenyl ring being optionally fused with a saturated or unsaturated 4 to 6-membered ring optionally containing a heteroatom selected

from N. O and S;

or Y is othylene-Het, said ethylene moiety being optionally mono substituted with lower alkyl, wherein Het is optionally mono or di-substituted with R⁵-or-C(O)R⁶, wherein R⁵ and R⁶ are as defined above; said Het being optionally fused with a saturated or unsaturated 4 to 6-membered ring-optionally containing a heterostom-selected from N, O and S;

R³ is selected from the group consisting of: lower alkyl, lower cycloalkyl, lower alkylene, aryl or lower aralkyl, ell of which optionally mono- or di-substituted with:

lower alkyl, lower cycloalkyl, haloalkyl, halo, CN, azido, lower alkoxy, (lower alkyl)acyl, C₁₋₆ thioalkyl, G₁₋₆ alkylsulfonyl, NHC(O) lower alkyl, NHC(O) aryl, NHC(O) O lower-alkyl, NHC(O)O aryl, aryl, aryloxy, hydroxy, nitro, amino, or-Het, said Het optionally mono- or di-substituted with lower alkyl, lower cycloalkyl, lower alkoxy, halo, hydroxy, nitrile, trifluoromethyl, C(O)R⁶ wherein R⁶ is as defined above;

said lower cycloalkyl, aryl, lower aralkyl or Het being optionally fused with a saturated or unsaturated 4 to 6-membered ring optionally containing a heteroatom selected from N, O and S;

and

R4 is a carboxylic acid, a salt or an ester thereof;

and with the provisos that:

- (1) when A is benzene, R⁴ is hydrogen, X and W together form a carbonyl group and Y is 4-methylphenyl, then R³ cannot be benzyl, 3-fluorophenyl, or 4-nitrophenyl;
- (2) when A is benzene, R¹ is hydrogen, X and W together-form a carbonyl group and R³ is cyclohexyl, then Y cannot be 4-iodophenyl or 4 methylphenyl;
- (3) when A is benzene, R¹ is hydrogen, X and W together form a carbonyl group and Y is 4 fluorophenyl, then R² cannot be 4 ethyloxyearbonylphenyl;
- (4) when A is benzene, R[†] is hydrogen, X and W together form a earbonyl group and Y is 2 methylphenyl then R³-cannot be 4 nitrophenyl;
- (5) when A is benzene, R¹ is hydrogen, X and W together form a earbonyl group and Y is 2-methylphenyl, then R³ cannot be phenyl or 2-brome 4-methylphenyl;
- (6) when A is benzene, R¹ is hydrogen, X and W together form a carbonyl group and Y is 4 chlorophenyl, then R³-carnot be 2 methoxyphenyl or 1,3-benzedioxolyl;

- (7) when A is benzene, R¹ is hydrogen, X and W together form a carbonyl group and Y is 4-othylphonyl, then R²-cannot be 3 fluorophonyl; and
- (8) when A is benzene, R⁴ is hydrogen, X and W together form a carbonyl group and Y is phonyl, then R³ cannot be phonyl.
- 2. (currently amended) A compound selected from the group, consisting of:

wherein A, X, R^1 , Y, R^3 , and R^4 are as defined in claim 1, with the provisos indicated in claim 1.

3. (original) A mixture of compound I(a) and compound I(b), according to claim 2.

- 4. (original) A mixture of compound I(c) and compound I(d), according to claim 2.
- 5. (currently amended) A compound mixture of, according to claim 3, wherein said mixture is racemic.
- 6. (currently amended) A compound mixture of, according to claim 4, wherein said mixture is racemic.
- 7. (currently amended) The compound I(a) and the compound I(b), A compound I(a) according to claim 32, are each as a pure enantiomers.
- 8. (currently amended) The compound I(c) and the compound I(d), A compound I(c) according to claim 42, are each as a pure enantiomers.
- (original) A compound according to claim 1 wherein X is H and W is OH; or X and
 W form a carbonyl group.
- 10. (original) A compound according to claim 9 wherein X and W form a carbonyl group.
- 11. (currently amended) A compound according to claim 1 wherein ring A is a benzene ring, as represented by the formula I':

wherein X, R¹, W, Y, R³, and R⁴ are as defined in claim 1, with the provises indicated in claim 1.

12. (cancelled)

- 13. (original) A compound according to claim 1, wherein R¹ is H; or one or two substituents independently selected from the group consisting of: hydroxy; halo; lower alkyl; lower alkoxy; lower thioalkyl; haloalkyl; or -C(O)R² wherein R² is lower alkyl, aryloxy or benzyloxy.
- 14. (original) A compound according to claim 13, wherein R¹ is H, halo or C₁₋₄ alkyl.
- 15. (original) A compound according to claim 14, wherein R¹ is H, fluoro or methyl.
- 16. (original) A compound according to claim 15, wherein R¹ is H or methyl.
- 17. (original) A compound according to claim 1, wherein Y is phenyl optionally mono- or di-substituted with R⁵ or C(O)R⁶, wherein R⁵ is lower alkyl, lower cycloalkyl, lower alkoxy, halo, hydroxy, nitrile or trifluoromethyl, and R⁶ is lower alkyl, lower cycloalkyl, lower alkoxy, hydroxy or trifluoromethyl; said phenyl ring being optionally fused with a saturated or unsaturated 4 to 6-membered ring optionally containing a heteroatom selected from N, O and S; or Y is ethylene-phenyl, said ethylene moiety being optionally mono-substituted with lower alkyl, wherein said phenyl ring is optionally mono- or di-substituted with R⁵ or C(O)R⁶, wherein R⁵ and R⁶ are as defined above; said phenyl ring being optionally fused with a saturated or unsaturated 4- to 6-membered ring optionally containing a heteroatom selected from N, O and S.
- 18. (original) A compound according to claim 17, wherein Y is naphthyl, CH=CH-phenyl, C(CH₃)=CH-phenyl or phenyl, wherein the phenyl ring is optionally mono- or disubstituted at the 3, 4, or 5 position with R^5 , wherein R^5 is halo, C_{1-4} alkyl, hydroxy, CF₃ or NHC(O)-(lower alkyl).

19. (original) A compound according to claim 18, wherein Y is phenyl optionally substituted with: 3,4-Cl; 3-F,4-Cl; 3-Cl,4-F; 3,4-Br; 3-F,4-CH₃; 3,4-CH₃; 3-CF₃,

- 20. (original) A compound according to claim 19, wherein Y is phenyl optionally substituted with: 3,4-Cl and 3,4-Br.
- 21. (currently amended) A compound according to claim 1, wherein R³ is selected from the group-consisting of:

eyelohexyl; C_{1-6} alkyl; C_{1-6} thioalkyl; $(C_{1-6}$ alkyl)phenyl wherein the phenyl ring is optionally substituted with:

lower alkyl, CF₃, halo, CN, azido, lower alkoxy, (lower alkyl)acyl, C₁₋₆ thioalkyl, C₁₋₆ alkylsulfonyl, NHC(O)-lower alkyl, aryl, aryloxy, hydroxy, nitro, amino, or Het, said Het optionally mono- or di-substituted with lower alkyl, lower alkoxy, halo, hydroxy, nitrile, or trifluoromethyl;

22. (currently amended) A compound according to claim 21, wherein R³ is selected from the group consisting of:

C₁₋₆ alkyl; C₁₋₆ thioalkyl;

- 23. (cancelled)
- 24. (cancelled)
- 25. (currently amended) A compound selected from the group consisting of: compounds having the following formula:

, wherein $R^{4A},\,R^1,\,R^5$ and R^3 are as defined as follows:

Cpd #	D4A	D	D5	D3
Cpu #	Λ.	K	K	K

Cpd#	R ^{4A}	R	R ³	-R ³	
1002	Na		3,4-Cl		;
1003	Na	-	4-Cl	+-	;
1004	Na	_	4 -Cl	0-CH ₃	;
1005	Na	-	4-Cl	+ CH ₃	;
1006	Na	_	4 Cl	⊢ ©	;
1007	Na	_	4-Cl	† 	;
1008	Na	_	4 iPr		;
1009	Na	-	4-Cl	<u>├</u>	;
1010	Na.		4-Cl	+ -	;
1011	Na	_	4 -Cl		;
1012	Na		4-Cl	CH ₄	;
1013	Na		4-Cl	≒ €	;
1014	Na	_	4-Cl	÷ CF ₃	;
1015	Na	_	3 Cl		;
1016	Na	_	4-CF ₃	\	;
1017	CH ₃	_	4- Cl	100	;

Cpd#	R ^{4A}	\mathbb{R}^1	-R ⁵	R ³	
1018	Na		3-CH ₃		;
1018	145	_			,
1019	Na	a-F	4 -Cl		;
1020	Na	-	3,5 Cl	100	;
1021	Na	_	3,4 Cl	+ CH ₃	;
1022	CH ₃	_	3,4-Cl		;
1023	Na	_	3-OCH ₃	1	;
1024	Na	_	3,4-CH ₃	T:	;
1025	Na	_	3,4 Cl	: e(cit,)a	;
1026	Na	_	3,4-F	100	;
1027	Na	_	3,4 Br	+ Cr,	;
1028	Na		3,4-Cl		;
1029	Na	-	3-F, 4- Cl	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	;
1030	Na		3-Cl, 4- F		;
1031	Na	_	3-CF ₃		;

Cpd#	R ^{4A}	R ¹	R ⁵	R ³
1032	Na	_	3-Cl	: О сн,
1033	Na	_	3,4 Cl	i CH ₃
1034	Na		3,4-Cl	<u>⊢</u> ⊘,
1035	Na	_	3,4-Cl	tor ;
1036	Na	_	3,4 Cl	сн, сн,
1037	Na	b CH ₃	3,4-Cl	100
1038	Na	_	3,4 Cl	CH,
1039	Na	-	4- <u>1</u>	100
1040	Na	_	3,4 Cl	
1041	Na	d-CH ₃	3,4 Cl	400
1042	Na	a-CH ₃	3,4 Cl	
1043	Na	_	3,4 Cl	├
1044	Na		3 Cl	родон,
1045	Na	_	3 F, 4 CF ₃	\
1046	Na	-	3,4 Cl	СН, СН,

Cpd #	R ^{4A}	R¹	R ³	R ³
1047	Na	_	3,4 Cl	; ;
1048	Na	d F	3,4 Cl	· To
1049	Na		3,4-Cl	,000 ;
1050	Na		3,4 Cl	Ápor ;
1051	Na	a-F	3,4-Cl	
1052	Na		3,4-Cl	
1053	Na	_	3,4-Cl	30 ₂ CH ₃
1054	Na	_	3,4-Cl	+ 🕒 🔾
1055	Na	-	3,4 Cl	CH ₃
1056	Ne	-	3,4-CH ₃	Си,
1057	Na	_	3,4 Cl	+
1058	Na	_	3,4 Cl	
1059	Na		3,4-F	<u>├</u> ───;
1060	Ne	-	3,4 Cl	CH ₃
1061	Na	_	3,4 F	*
1062	Na	_	3,4-F	÷

Cpd#	R ^{4A}	R ¹	R ⁵	-R ³
1063	Na		3,4-Cl	
+₩03	144	1	3,1 01	'
1064	Na	_	3,4-F	;
1065	Na	_	3,4- Cl	- 1 OH ₃
1066	Na		3,4 Cl	;
1067	Na	-1	3 F, 4- CF ₃	÷ CH,
1068	Na	_	3,4 F	+ 💮
1069	Na	b Br	3,4-Cl	; Си,
1070	Na	_	3,4-Cl	
1071	Na	_	3,4-CH ₃	
1072	Ne		3,4 Br	
1073	Na		3,4-F	
1074	Na	_	3,4 Br	+
1075	Na	_	3,4 Br	
1076	Na		3,4-Br	
1077	Na	_	3,4-Cl	~~
1078	Na	-	3,4-Br	<u> </u>
1079	Na	_	3,4-Br	CH ₃

Cpd#	R ^{4A}	\mathbb{R}^1	R3	R ³	
1080	Na		3 CN		3
1081	Na	-	3 ,4 Br	- CH ₃	÷
1082	Na	_	3,4- Cl	\vdash	÷
1083	Na		3,4-F		;
1084	Na	1077	3,4 Br		÷
1085	Na		3-CN		;
1086	Na	_	3,4 Br		;
1087	Na		Y	Ен,	;
1088	Na	_	3,4-Br	stereochemistry undetermined	÷
1089	Na		3,4-Br		
				stereochemistry undetermined	
1090	Na			СН,]
1091	Na		3,4 Cl	₩ an	ÿ
1092	Na	-	3,4 Br	Д СН,	ţ
1093	Na		3 Cl, 4 F		÷

Cpd#	R ^{4A}	RI	R ⁵	R³
1094	Na	_	3-Cl, 4- F	;
1095	Na	0	3,4 Cl	; сн.
1096	Na	_	3,4 Cl	; ;
1097	Ne	_	3,4 Br	***************************************
1098	Na	-	3,4 Cl	;
1099	Na	_	3,4 Br	;
1100	Na	_	3,4 Cl	*
1101	Na	_	3,4 Cl	;
1102	Na	_	3,4-Br	CI Br
1103	Na	-	3,4-Br	·oo ;
1104	Na	-	3,4 Cl	Çı Ş
1105	Ne	-	3,4-Br	-F
1106	Na	b-F	3,4 Cl	,
1107	Na	e-F	3,4 Cl	; Сн,

Cpd#	R ^{4A}	R ¹	-R ³	R³
1108	Na	_	3,4 Cl	÷ CH,
1109	Na	-	3,4-Bt	; ;
1110	Na	-	3,4 Br	· Ct
1111	Na	_	3,4 Cl	; F
1112	Na	_	3,4 Cl	÷
1113	Na	_	3,4-Br	· · ·
1114	Na	e-Cl	3,4-Cl	CH,
1115	Na	_	3- Cl, 4 F	· ·
1116	Na	b-Cl	3,4-Cl	; сн,
1117	Na	_	3,4-Cl	NO ₂
1118	Na	_	3,4 Br	OCF,
1119	Na		3,4 Br	,
1120	Na		3 Cl, 4- F	``

Cpd#	R ^{4A}	R	R ³	-R ³	
1121	Na	-	3-Cl, 4- F	G Br	;
1122	Na	_	3 Cl, 4- F		,
+123	Na	-	3,4 Cl		÷
1124	Na	_	3,4 Cl	OMe O	÷
1125	Na	_	3,4 Cl		÷
1126	Ne	_	3,4-Cl	CH ₃	*
1127	Ne	-	3,4 Cl	CN	ŷ
1128	Na		3,4-Cl		;
1129	Na	e- OMe	3,4 Cl	; сн,	÷
1130	Na	b- OMe	3,4 Cl	сн,	÷
1131	Na		3 Cl, 4 F		÷
1132	Na		3,4 F	CH ₅	÷
1133	Na	_	3,4-Cl		Ť
1134	Ne	_	3,4-Br	Çi Çi	÷

Cpd#	R ^{4A}	R ¹	R ⁵	R ³	
1135	Na	_	3,4-Cl		÷
1136	Na	-	3,4 Cl	- SH,	,
1137	Na	-	3,4-Cl	OMe	÷
1138	Na	 .	3,4-Cl	- S	3
1139	Na	_	3,4 Cl	CF ₃ O	÷
1140	Na	_	3,4 GI	\$ \frac{1}{2} \fra	5
1141	Na		3- NHC(O) (CH ₂) ₃ CH ₃ ; 4-Cl	СН	2
1142	Na	_	3,5-Cl	er_	;
1143	Na	b-F	3,4-Br	$+ \bigcirc + \bigcirc$; and
1144	Na	c-F	3,4-Br		

26. (currently amended) A compound selected from the group consisting of: compounds having the following formula:

wherein R^{4A} , R^1 , R^5 , and R^3 are as defined as follows:

Cpd#	R ^{4A}	\mathbb{R}^1	R ³	-R ³	
A1001	Na		3,4-Br	-Chen	;
		•		stereochemistry undetermined	
A1002	Na		3,4-Br		;
	,			stereochemistry undetermined	
A1003	Na	mixture b Me &	3,4 Cl	· C	+
		e-Me		stereochemistry undetermined	
A1004	Na	b-Me	3,4-Cl		÷
	!			stereochemistry undetermined	
A1005	Na	e Me	3,4-Cl	1	÷
				stereochemistry undetermined	
A1006	Na	mixture b-Me &	3,4-Cl	N=N s] ;
		c-Me		stereochemistry undetermined	

Cpd#	R ^{4A}	R ¹	R ⁵	R ³	
A1007	Na	b-Me	3,4-C1		;
				stereochemistry undetermined	
A1008	Na	c-Me	3,4-Cl	I— Ni≅N s	;
				stereochemistry undetermined	
A1009	Na	mixture b-Me &	3,4-Br	I————————————————————————————————————	;
		c-Me		stereochemistry undetermined	
A1010	Na	b-Me	3,4-Br		;
				stereochemistry undetermined	
A1011	Na	c-Me	3,4-Br	N=N s	;
				stereochemistry undetermined	
A1012	Na	<u>.</u>	3,4-Br		;
				stereochemistry undetermined	
A1013	Na		3,4-Br		;
				stereochemistry undetermined	
A1014	Na	с-Ме	3,4-Br		;
A1015	Na	b-F, c-Me	3,4-Br		; and
A1016	Na	b-Me,	3,4-Br		
	<u></u>	l	<u> </u>		j

27. (currently amended) A compound selected from the group consisting of: compounds having the following formula:

wherein R¹, R⁵, and R³ are as defined as follows:

				1
Cpd #	R ¹	R ⁵	R³	
B1001	b-Me,	3,4-Br		;
	c-Me		. 🗸 🔾	
	(mixture)			
B1002	b-Me	3,4-Br		,
B1003	c-Me	3,4-Br		;
B1004	b Me	3,4-Br	i ci	ĵ
B1005	e Me	3,4-Br	G) ;
₿1006	b-Me	3,4-Br	CI	;
B1007	c Me	3,4 Br	a	; and
B1008	b-F, c-Me	3,4-Br		

- 28. (cancelled)
- 29. (cancelled)

30. (currently amended) A compound selected from the group consisting of: compounds having the following formula:

wherein R⁵ and R³ are as defined as follows:

Cpd#	−R ⁵	R ³	
2002	4-Cl	— о-сн ₃	;
2003	4 -Cl	÷ CH ₃	÷
2004	4 -Cl	 	;
2005	3-Cl	- CTO	÷
2006	4-Cl	 	÷
2007	4 Cl		÷
2008	4-CF ₃		*
2009	4-Cl		÷
2010	4 Cl	⊢ Corri	;
2011	4 Cl	<u>:</u> —○ CF ₄	} ;

Cpd#	R ⁵	—R ³	_
2012	4-Cl	+6	Ť
2013	3,4 Cl		;
2014	3-CH₃	\	ţ
2015	4 Cl	CF3	ţ
2016	3,4-Cl	€ СН3	•
2017	4-1		÷
2018	3,4 Cl	H,C CH,	5
2019	3,4-Cl	NH ₂	÷,
2020	4 OH, 5 Cl		3
2021	3,4-Cl	÷ 0++	÷
2022	3,4 Cl		÷ and
2023	3,4-Br	├ ──].

31. (currently amended) A compound selected from the group consisting of: compounds having the following formula:

wherein R1, Y, and R3 are as defined as follows:

Cpd#	R ^T	Y	R ³	
3001	-	÷ 61		ŝ
3002	1		† ()	\$
3003	_	10.	*	;
3004	_	- Ca	'()	3
3006	_	- Ca	<u> </u>	Ť
3007	_	- Ca	<u>е</u> н,	÷
3008	-	- Ci	F N∓N=H	4
3009	_	, C	□	;
3100	_	· Co	ĞH,	;
3011	_	T _a	70	÷
3012	-		- СН,	,

Cpd#	R	Y	R ³	
3013	с-Ме	Br Br	in the second se	;
3014	_	a a		4
3015	-	a ci		;
3016	b-F	Br		; and
3017	c-F	Br	├ ○- \ ○]

Claims 32-37 (cancelled)

(original) A compound having the following formula: 38.

wherein Y and R3 are as defined as follows:

Cpd #	 	-Y	R ³
10,0	01	Br Br	

(original) A pharmaceutical composition comprising an anti-papillomavirus virally 39. effective amount of a compound of formula (I), according to claim 1, or a therapeutically acceptable salt or ester thereof, in admixture with a pharmaceutically acceptable carrier medium or auxiliary agent.

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- 40. (currently amended) A method for treating a papillomavirus viral infection in a mammal by administering to the mammal an anti-papilloma virus virally effective amount of the a compound of formula (I), according to claim 1 without the provisos indicated in claim 1, or a therapeutically acceptable salt or ester thereof, or a pharmaceutical composition comprising an anti-papillomavirus virally effective amount of a compound of formula (I) according to claim 1 without the provisos indicated in claim 1, or a therapeutically acceptable salt or ester thereof, in admixture with a pharmaceutically acceptable carrier medium or auxiliary agent.
- 41. (currently amended) A method for inhibiting the replication of papillomavirus by exposing the virus to an amount of the a compounds of formula (I), according to claim 1 without the provisos indicated in claim 1, inhibiting the papilloma virus E1-E2-DNA complex, or a therapeutically acceptable salt or ester thereof, or a composition comprising an anti-papillomavirus virally effective amount of a compound of formula (I) according to claim 1-without the provisos indicated in claim 1, or a therapeutically acceptable salt or ester thereof, in admixture with a pharmaceutically acceptable carrier medium or auxiliary agent.
- 42. (currently amended) A method of preventing perinatal transmission of HPV from mother to baby, by administering a compound of formula (I), according to claim 1, without the provisos indicated in claim 1, to the mother prior to giving birth.

Claims 43-53 (cancelled)

- 54. (new) A compound I(b) according to claim 2, as a pure enantiomer.
- 55. (new) A compound I(d) according to claim 2, as a pure enantiomer.